

loop ; C, the pedicle muscles ; B, the adductor ones ; A, the cardinal muscles.

Fig. 28. *Argiope cistellula*, Wood; interior of both valves as seen in dried specimens (much enlarged); A, the retractor and pedicle muscles. The position of the arms and mouth is the same as in *A. cuneata*, &c.

Fig. 29. *Morrisia anomoides* (Scacchi, sp.); enlarged : o, the ovaries seen through the transparency of the shell.

Fig. 30, 31. *Rhynchonella nigricans*, Sow. sp.; natural size.

Fig. 32-34. *Orbicula Evansii*, Dav.; enlarged.

## 2. DESCRIPTIONS OF EIGHTEEN NEW SPECIES OF LAND SHELLS, FROM THE COLLECTION OF H. CUMING, ESQ.

BY DR. L. PFEIFFER.

1. **HELIX AVUS**, Pfr. *H. testá umbilicatá, depressá, solidá, obliquè striatulá, nitidulá, pallide fulvá; spirá convexá, brevi; suturá levi; anfractibus 4 vix convexiusculis, sensim accrescentibus, ultimo carinato, utrinque convexiore, fascia fusca ad suturam, pallidaque ad carinam ornato, basi pallido, circa umbilicum mediocrem, pervium subcompresso; aperturá vix obliquú, subtriangulari-lunari; peristomate crasso, albo, expanso et reflexo, marginibus remotis, callo crasso junctis.*

Diam. maj. 37, min. 31, alt. 18 mill.

*Hab.* in insulis Philippinis.

2. **HELIX EMILIANA**, Pfr. *H. testá perforatá, conoideo-lenticulari, solidulá, supernè confertim costulatá, lineis impressis spiralibus subregulariter granulatá, opacá, lutescenti-fusca; spirá conoidea, vertice elevato, obtusiusculo; anfractibus 6 convexiusculis, lente accrescentibus, ultimo non descendente, compressè carinato, basi convexo, radiatim striatulo, nitidulo; aperturá obliquá, angulato-lunari; peristomate simplice, recto, margine columellari ad perforationem reflexiusculo.*

Diam. maj. 16, min. 15, alt. 8 mill.

*Hab.* in insula Ceylon.

3. **HELIX REDFIELDI**, Pfr. *H. testá umbilicatá, conoideo-globosá, tenui, irregulariter striatá et obsoletissimè decussatá, diaphaná, nitidá, fulvo-corneá; spirá conoidea, obtusulá; anfractibus  $5\frac{1}{2}$  convexis, regulariter accrescentibus, ultimo inflato, non descendente; aperturá parum obliquá, lunato-rotundatá, altiore quam latá, intus margaritacea; peristomate simplice, recto, acuto, marginibus remotis, columellari subverticali, sursum dilatato, umbilicum angustum semitegente.*

Diam. maj. 17, min. 15, alt. 14 mill.

*Hab.* Shang Hai, Chinæ (Mr. Fortune).

4. **HELIX NUDA**, Pfr. *H. testá vix perforatá, conoideo-depressá, tenui, radiatim striatulá, pellucidá, pallide fulvo-corneá; spirá conoidea, acutiusculá; suturá impressá, albo-submarginatá; anfractibus 6 convexiusculis, ultimo majore, inflato, non descen-*

*dente ; aperturā ferè diagonalī, rotundato lunari, latiore quam altā ; peristomate simplice, recto, marginibus subconniventibus, dextro arcuatim antrorum dilatato, columellari subprecedente, arcuato, supernè dilatato, reflexo.*

Diam. maj. 11, min. 9 $\frac{2}{3}$ , alt. 7 mill.

*Hab. in Himalayah (Mr. Fortune).*

5. **HELIX MINERVA**, Pfr. *H. testā umbilicatā, sublenticulari, solidā, subtiliter et confertim striatā, carinatā, nitidulā, luteā, fasciis 2 nigro-castaneis supra et infra carinam ornatā ; spirā brevi, convexā, obtusā ; suturā linearī ; anfractibus 4 sensim accrescentibus, vix convexiusculis, ultimo non descendente, basi, præsertim antice, convexo, circa umbilicum angustum, conicum, subcompresso ; aperturā diagonalī, rotundato-lunari, intus submargaritacea ; peristomate simplice, recto, marginibus remotis, supero antrorum subarcuato, columellari subverticali, sursum dilatato, patente.*

Diam. maj. 25, min. 22 $\frac{1}{2}$ , alt. 12 mill.

*Hab. in insulâ Celebes ?*

6. **HELIX REHBEINI**, Pfr. *H. testā imperforatā, globosā, solidā, minutissimè striatulā, sub epidermide non nitente, virenti-luteā albā, plerumque fasciis saturatè castaneis pluribus latis cinctā ; spirā conoideo-semiglobosā, obtusulā ; anfractibus 4 $\frac{1}{2}$  modicè convexis, rapidè crescentibus, ultimo rotundato, anticè breviter descendente, circa columellam vix declivem, latam, albam, sub-excavatam nigricante ; aperturā diagonalī, lunato-rotundatā, intus albida ; peristomate albo, expanso-reflexiusculo, intus sub-incrassato.*

Diam. maj. 27, min. 23, alt. 20 mill.

*Hab. in insulis Philippinis.*

7. **HELIX EVA**, Pfr. *H. testā imperforatā, trochiformi, solidā, subtiliter et confertim striatā, vix nitidulā, carnae, sursum fasciā fusco-violacea ornatā vel omnino fusculā ; spirā conicā, acutiusculā ; suturā impressā ; anfractibus 5 vix convexis, ultimo non descendente, acutè carinato, basi convexiusculo, medio impresso ; aperturā perobliquā, lunato-rhombeā ; peristomate fusco-limbato, marginibus subparallelis, supero expansiusculo, basali arcuato, medio angulum obsoletum formante, incrassato, breviter reflexo.*

Diam. maj. 14, min. 12, alt. 9 mill.

*Hab. in insulis Novis Hebridibus.*

8. **HELIX ISODON**, Pfr. *H. testā angustè umbilicatā, conoideo-lenticulari, solidā, undique minutè granulatā, castaneo-fuscā ; spirā latè conoidea, obtusulā ; anfractibus 5 vix convexiusculis, lentè accrescentibus, ultimo carinato, anticè perdeflexo, strangulato et scrobiculato, basi convexo ; aperturā ferè horizontali, auriformi ; peristomate fusculo, subinerassato, reflexo, marginibus callo alte elevato flexuoso, medio laminam linguæ-*

*formem emittente junctis, dextro valde curvato, bidentato, basali declivi, unidentato, dentibus subæqualibus, validis.*

Diam. maj. 19, min.  $17\frac{1}{2}$ , alt.  $10\frac{2}{3}$  mill.

*Hab.* in Columbiâ occidentali.

9. **BULIMUS JANUS**, Pfr. *B. testâ imperforatâ, dextrorsâ vel sinistrorsâ, subfusiformi-oblongâ, solidâ, vix nitidulâ, luteâ-fasciis 3 extus opace viridibus, intus nitide atro-castaneis, peristoma non attingentibus, basali latissimâ, varicibusque castaneis sparsis ornatâ; spirâ conicâ, acutiusculâ; anfractibus 6-7 convexiusculis, ultimo  $\frac{2}{3}$  longitudinis subæquante, basi attenuato; columellâ verticali, strictâ; aperturâ obliquâ, semi-ovali, basi subangulatâ; peristomate subincrassato, breviter reflexo, albo, marginibus callo nigro-castaneo junctis.*

Long. 47, diam. 20 mill.

*Hab.* in Novis Hebridibus.

10. **BULIMUS FULIGINEUS**, Pfr. *B. testâ imperforatâ, oblongâ, solidâ, longitudinaliter striatâ et concentricè irregulariter subsulcatâ, fuligined; spirâ convexo-conicâ, obtusulâ; suturâ profundâ, pallidâ; anfractibus 5 modicè convexis, rapidè accrescentibus, ultimo  $\frac{3}{5}$  longitudinis æquante, basi attenuato; columellâ carneâ, subtortâ, basi subtruncatâ; aperturâ vix obliquâ, elongato-auriformi, intus livida; peristomate undique expansi sculo, margine dextro medio impresso, intus subdentato.*

Long. 38, diam. 16 mill.

*Hab.* in Novis Hebridibus.

11. **BULIMUS BLANDI**, Pfr. *B. testâ perviè et angustè umbilicatâ, turritâ, tenuiusculâ, obliquè confertim filoso-striatâ, opacâ, calcareâ; spirâ elongatâ, infra apicem latum, obtusum attenuatâ; suturâ vix impressâ; anfractibus 17 planis, ultimo subangulato,  $\frac{1}{7}$  longitudinis subæquante; aperturâ vix obliquâ, subtetragonâ; peristomate simple, recto, margine columellari supernè reflexi sculo.*

Long. 22, diam. 7 mill.

*Hab.* Baranguilla in Andibus Columbianis (*Bland*).

12. **PARTULA GLUTINOSA**, Pfr. *P. testâ subumbilicatâ, subpyramidalâ, solidâ, levigatâ (sub lente vix decussatulâ), epidermide fulva, nitida, quasi glutinosâ obductâ; spirâ elevato-conicâ, apice acutâ; suturâ laevi; anfractibus 5, superis planis, ultimo spiram subæquante, conviore, basi quasi saccato; columellâ leviter arcuatâ, supernè vix plicatâ; aperturâ ferè verticali, oblongâ, obliquè protractâ; peristomate lato, intus calloso, violaceo-fusco limbato, marginibus subparallelis.*

Long. 19, diam. 10 mill.

*Hab.* — ?

13. **PARTULA DENTIFERA**, Pfr. *P. testâ subumbilicatâ, ovato-conicâ, solidâ, sublevigatâ, parum nitidâ, pallide stramineâ; spirâ conicâ, apice acutiusculâ; suturâ marginatâ; anfractibus*

$5\frac{1}{2}$ , summis planis, penultimo convexiore, ultimo spirâ vix breviore, convexo, anticè medio impresso; columellâ subverticali, vix plicatâ; aperturâ vix obliquâ, angustâ, obversè auriformi; peristome valdè incrassato, albo, patente, marginibus subparallelis, dextro supernè valdè curvato, medio tuberculum acutum, dentiforme gerente.

Long.  $21\frac{1}{2}$ , diam. 10 mill.

Hab. —?

14. ACHATINA IOSTOMA, Pfr. *A. testâ fusiformi-ovatâ, tenui, undique æqualiter granulatâ, parum nitidâ, fulvâ, strigis obscuris, latis, subangulis, castaneis ornatâ; spirâ conicâ, supernè attenuatâ, pallidâ, apice obtusâ; suturâ subcrenatâ; anfractibus  $7\frac{1}{2}$  vix convexiusculis, ultimo spiram paulò superante, basi subattenuato; columellâ leviter tortâ, basi obliquè et breviter truncatâ; aperturâ verticali, angustè semiovali, intus pallide lilacinâ, nitidâ; peristome simple, margine dextro regulariter arcuato.*

Long. 128, diam. 56 mill.

Hab. Fernando Po (Fraser).

15. ACHATINA GLUTINOSA, Pfr. *A. testâ orato-conicâ, tenuiusculâ, longitudinaliter striatâ, subunicolore fulvâ; spirâ conicâ, sursum attenuatâ, apice obtusiusculâ; anfractibus  $7\frac{1}{2}$ , mediis lineis spiralibus subdecussatis, ad suturam submarginatam profundè striatis, ultimo spiram paulò superante, sublævigato, glutinoso-nitente; columellâ plicato-tortâ, basi abruptè truncatâ; aperturâ obliquâ, ferè ovali, intus lilaced, margaritacea; peristome simple, fusco-limbato, margine basali arcuato.*

Long. 98, diam. 45 mill.

Hab. in Africâ occidentali (Fraser).

16. ACHATINA DESHAYESI, Pfr. *A. testâ turrito-ovatâ, tenuiusculâ, sublævigatâ, nitidâ, corneo-fuscâ; spirâ elongatâ, convexâ, apice obtusulâ; suturâ simple, subprofundâ; anfractibus 7 convexis, ultimo  $\frac{2}{3}$  longitudinis subæquante, basi rotundato; columellâ subtortâ, latè et obliquè truncatâ; aperturâ vix obliquâ, rhomboe-semiovali; peristome simple, obtuso, margine dextro subrepando.*

Long. 11, diam. 5 mill.

Hab. in insulâ Ceylon.

17. ACHATINA CEREA, Pfr. *A. testâ oblongo-turritâ, tenui, subtiliter et regulariter striatâ, nitidâ, pellucida, pallide cereâ; spirâ rectilineari, apice obtusa; suturâ mediocri, minutè crenulatâ; anfractibus 8 vix convexis, ultimo  $\frac{1}{4}$  longitudinis vix superante, infra medium subangulato; columellâ curvatâ, abruptè truncatâ; aperturâ obliquâ, oblongâ; peristome simple, recto, margine dextro leviter arcuato.*

Long. 14, diam.  $4\frac{2}{3}$  mill.

Hab. Fernando Po (Fraser).

18. *HELICINA SUBLÆVIGATA*, Pfr. *H. testa conoideo-depressa, solidula, sublævigata, nitidula, unicolor rubella vel albida, subtilis violaceo zonata; spiræ breviter conoidea, vertice obtusulo; anfractibus 5 vix convexiusculis, ultimo latiore, peripheria obsoletè angulata; apertura diagonali, subsemiovali; columella brevi, simplice, callum crassiusculum, circumscriptum retrorsum emittente; peristomate simplice, breviter expanso, margine basali ferè rectilineari, ad columellam subdentato. Operculum tenui, corneum.*

Diam. maj. 8, min.  $6\frac{1}{2}$  alt. 5 mill.

*Hab.* in Novis Hebridibus.

3. NOTES ON THE *DIDUNCULUS*, A SPECIES OF PIGEON SUPPOSED TO BE PECULIAR TO THE NAVIGATOR'S ISLANDS. BY LIEUT. THE HON. F. WALPOLE, R.N. COMMUNICATED BY J. H. GURNEY, ESQ., F.Z.S.

May 25.

Lieut. Walpole always saw this bird (when in its natural state) either perching on trees or flying about them,—feeding by day and roosting by night among the branches. He never saw them on the ground, though he has seen places where they appeared to have been scratching, either for roots or for other food. The crops of the specimens which he examined were, however, generally filled with green berries, which grew in clusters on a species of ash. The number of specimens so examined was considerable, as the birds formed Lieut. Walpole's principal food while on these islands. He found the flesh most excellent, though in colour darker even than that of the English wood-pigeon. The flight of the *Didunculus* is mostly limited to a transit from wood to wood, as they rarely attempt to pass from one island to another,—the distance between the islands varying from ten to eighty nautical miles.

Though their flight appears to be inferior to that of most pigeons, it is of the same swooping and continuous character.

They retire late to roost, but are not nocturnal.

They are generally seen either in pairs or in small flocks. The largest flock seen by Lieut. Walpole consisted of nine.

In the breeding season they pair and retire to the interior of the islands, where they nest amongst the rocks.

Lieut. Walpole does not know the colour or number of the eggs, but states that the young are naked and helpless.

The male bird is superior to the female in size, colour, and carriage, but does not attain his full plumage until the second year.

The natives of the Samoon Islands are fond of keeping the *Didunculi* tame as pets, either taking them from the nest, or, when older, with bird-lime.

They attach the bird by a long string fastened round one leg to a stick about two feet in length, with a fork at the end, which is stuck generally in the wall inside the hut, but sometimes in the ground outside.